What is claimed is:

1. An microelectronic device, comprising:

a semiconductor substrate; and

a nitridized hydroxy-silicate layer.

2. The microelectronic device of Claim 1, wherein the nitridized hydroxy-silicate layer comprises a silicon oxynitride.

3. The microelectronic device of Claim 2, wherein the silicon oxynitride is a material in accordance with the expression $SiO_xN_{(4-2x)/3}$ where $0 \leq x \leq 2$.

4. The microelectronic device of Claim 2, wherein the silicon oxynitride has a thickness less than approximately 7 angstroms.

5. The microelectronic device of Claim 2, wherein the semiconductor substrate comprises a silicon wafer.

6. The microelectronic device of Claim 4, further comprising a gate electrode disposed over the silicon oxynitride layer.

7. The microelectronic device of Claim 6, further comprising a pair of source/drain terminals disposed in the semiconductor substrate, substantially adjacent to the gate electrode.

8. A field effect transistor, comprising:

a gate electrode;

a pair of source/drain terminals disposed in a substrate, substantially adjacent the gate electrode; and

a gate dielectric disposed between the gate electrode and the substrate, the gate dielectric comprising a silicon oxynitride layer less than or equal to approximately 7 angstroms.

9. A method of forming a dielectric layer on a surface of a substrate, the method comprising:

passivating the surface of the substrate; and

nitridizing the passivated surface.

10. The method of Claim 9, wherein passivating the surface of the substrate comprises forming a hydroxy-silicate layer.

11. The method of Claim 10, wherein the hydroxy-silicate layer is a material in accordance with the expression $(SiO_{2-x},(OH)_{2x}nH_2O$ where $0 \leq x \leq 1$, $n \geq 0$).

12. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with a base and treating the surface with an acid.

13. The method of Claim 9, wherein passivating the surface of the substrate comprises:

subjecting the wafer to a bath in deionized water at approximately 24°C for approximately 200 seconds;

subjecting the wafer to a 5:1:1 solution of H_2O:H_2O_2:NH_4OH at approximately 24°C for approximately 10 minutes;

rinsing the wafer with deionized water at approximately 24°C for approximately 315 seconds;

subjecting the wafer to a bath in a 5:1:1 solution of H_2O:H_2O_2:HCl at approximately 24°C for approximately 10 minutes; and

rinsing the wafer with deionized water at approximately 24°C for approximately 315 seconds.

14. The method of Claim 9, further comprising drying the wafer after passivating the surface.

15. The method of Claim 14, wherein drying comprises subjecting the wafer to an isopropyl alcohol vapor jet at approximately 80°C for approximately 10 minutes.

16. The method of Claim 14, wherein drying comprises exposing to the wafer to a pressure that is less than atmospheric pressure.

17. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with phosphoric acid.

18. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with sulfuric acid and hydrogen peroxide.

19. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with ammonium hydroxide, hydrogen peroxide and water.

20. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with nitric acid.

21. The method of Claim 9, wherein passivating the surface of the substrate comprises treating the surface with ozonated water.

22. A method of making a field effect transistor, comprising:

forming an oxide layer on a substrate;

removing the oxide layer;

forming a hydroxy-silicate layer on the surface of the substrate at temperature approximately equal to 24°C;

converting the hydroxy-silicate layer to a silicon oxynitride layer;

forming a gate electrode layer over the oxynitride layer;

patterning the gate electrode layer to form a gate electrode; and

forming source/drain terminals substantially adjacent the gate electrode.

23. The method of Claim 22, wherein the silicon oxynitride layer is less than approximately 7 angstroms.

24. The method of Claim 22, wherein converting the hydroxy-silicate layer to the oxynitride layer comprises plasma nitridation.

25. The method of claim 24, wherein plasma nitridation comprises placing the substrate in a parallel plate plasma chamber with a plate spacing in the range of 200 to 1000 mils, an RF power in the range of 300 to 600W, a gas flow in the range of 0.5 to 3 liters/minute of N_2, a pressure in the range of 1 to 5 Torrs, at a temperature in the range of 200 to 500 °C, for the range of 10 to 90 seconds.

26. The method of Claim 22, wherein converting the hydroxy-silicate layer to the oxynitride layer comprises rapid thermal nitridation using NH_3 for approximately 30 seconds at approximately 900°C.